

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method comprising:
dynamically obtaining one or more program operators from source code in a pre-compiler of a compiler module; and
applying data transformation to a portion of the source code in the pre-compiler to create interlocking Feistel networks in each iteration of a plurality of iterations of forming matching pairs of data values, based on one of said one or more program operators to provide encrypting compiler-generated code.

Claim 2 (original): The method of claim 1, including mixing the encrypting compiler-generated code with the source code other than said portion before compilation.

Claim 3 (previously presented): The method of claim 1, further comprising dynamically deriving from the source code at least one compiler-generated operator for said data transformation.

Claim 4 (original): The method of claim 3, further comprising performing encryption using at least one of said at least one compiler-generated operator and said at least one of said one or more program operators.

Claim 5 (original): The method of claim 1, further comprising selectively encrypting one or more regions of the source code with a custom cipher formed from said at least one of said one or more program operators.

Claim 6 (currently amended): The method of claim 1, including:
determining at least two references for each variable of a variable pair to selectively encrypt and decrypt data in between said at least two references; and

associating at least two of the data values with each variable of the variable pair for encryption of the data in a first transformation and decryption of the data in a second transformation.

Claim 7 (currently amended): The method of claim 6, further comprising:
iteratively forming the matching pairs of said data values for each variable of the variable pair; and
creating the interlocking Feistel networks in each iteration involving a different matching pair of said data values.

Claim 8 (original): The method of claim 7, further comprising:
enabling detection of usage of one or more redundant computations in the interlocking Feistel networks; and
in response to a change in at least one of the one or more redundant computations, provisioning for corruption of unrelated data values relative to said data values.

Claim 9 (currently amended): A method comprising:
analyzing flow of data in source code having one or more program operators to determine matching references to a pair of variables;
determining a block of the source code in which said pair of variables is not used;
associating the matching references based on a heuristic to provide data encryption to modify a portion of the source code into encrypting compiler-generated code, including utilizing the heuristic to enhance obfuscation of the encrypting compiler-generated code within the source code using at least one of said one or more program operators; and
mixing the encrypting compiler-generated code with the source code.

Claim 10 (original): The method of claim 9, wherein analyzing flow of data further including:
detecting a first region of the source code in which use of a stored value for at least one variable of said pair of variables occurs; and

detecting a second region of the source code in which the stored value is defined for the at least one variable of said pair of variables.

Claim 11 (cancel)

Claim 12 (currently amended): A method comprising:

identifying a first reference point and a second reference point within a set of blocks of source code having one or more program operators;

associating an encryption code in proximity to the first reference point and associating a decryption code in proximity to the second reference point; ~~and~~

customizing a cipher based on at least one of said one or more program operators;

selecting a block from the set of blocks, the block containing a first variable having a maximum distance over the set of blocks, and a second variable having a next maximal distance in the same block;

providing the encryption code to encrypt data in between a pair of references to the first and second variables;

providing the decryption code to decrypt said data; and

compiling a portion of the source code into encrypting compiler-generated code to mix with the source code other than said portion.

Claim 13 (cancel)

Claim 14 (currently amended): The method of claim [[13]] 12, further comprising recompiling the encrypting compiler-generated code with the source code other than said portion into tamper resistant object code.

Claim 15 (currently amended): The method of claim [[13]] 12, including:

deriving from the source code at least one compiler-generated operator for data flow transformation; and

using at least one of said at least one compiler-generated operator and said at least one of said one or more program operators to provide the encryption code.

Claim 16 (currently amended): An article comprising a medium storing instructions that, if executed enable a system to:

dynamically obtain one or more program operators from source code; and

apply data transformation to a portion of the source code to create a Feistel network in each iteration of a plurality of iterations of forming matching pairs of data values, based on one of said one or more program operators to form encrypting compiler-generated code.

Claim 17 (original): The article of claim 16, further comprising instructions that if executed enable the system to mix the encrypting compiler-generated code with the source code other than said portion.

Claim 18 (original): The article of claim 16, further comprising instructions that, if executed enable the system to use at least one compiler-generated operator and said at least one of said one or more program operators for encryption.

Claim 19 (original): The article of claim 16, further comprising instructions that, if executed enable the system to selectively encrypt one or more regions of the source code with a cipher formed from said at least one of said one or more program operators.

Claim 20 (currently amended): An apparatus comprising:
an analyzer to perform data flow analysis of source code to dynamically obtain one or more program operators therefrom; and
a code transformer coupled to said analyzer to apply data transformation to select a selected region of the source code in which to provide encrypting compiler-generated code based on one of said one or more program operators;
an encryption engine to selectively encrypt and decrypt the selected region based on references to a variable identified in the selected region; and

a heuristic to select the selected region and the references.

Claim 21 (original): The apparatus of claim 20, further comprising a cipher based on said at least one of one or more program operators.

Claims 22 - 23 (cancel)

Claim 24 (currently amended): A system comprising:

a dynamic random access memory having source code stored therein;

an analyzer to perform data flow analysis of the source code to dynamically obtain one or more program operators therefrom; and

a code transformer coupled to said analyzer to apply data transformation to select a selected region of the source code to provide encrypting compiler-generated code based on one of said one or more program operators;

an encryption engine to selectively encrypt and decrypt the selected region based on references to a variable identified in the selected region; and

a heuristic to select the selected region and the references.

Claim 25 (original): The system of claim 24, further comprising a cipher based on said at least one of one or more program operators.

Claims 26 - 27 (cancel)

Claim 28 (new) The apparatus of claim 20, wherein the analyzer includes a flow analysis engine to identify the selected region in which the variable is not used.

Claim 29 (new): The system of claim 24, wherein the analyzer includes a flow analysis engine to identify the selected region in which the variable is not used.